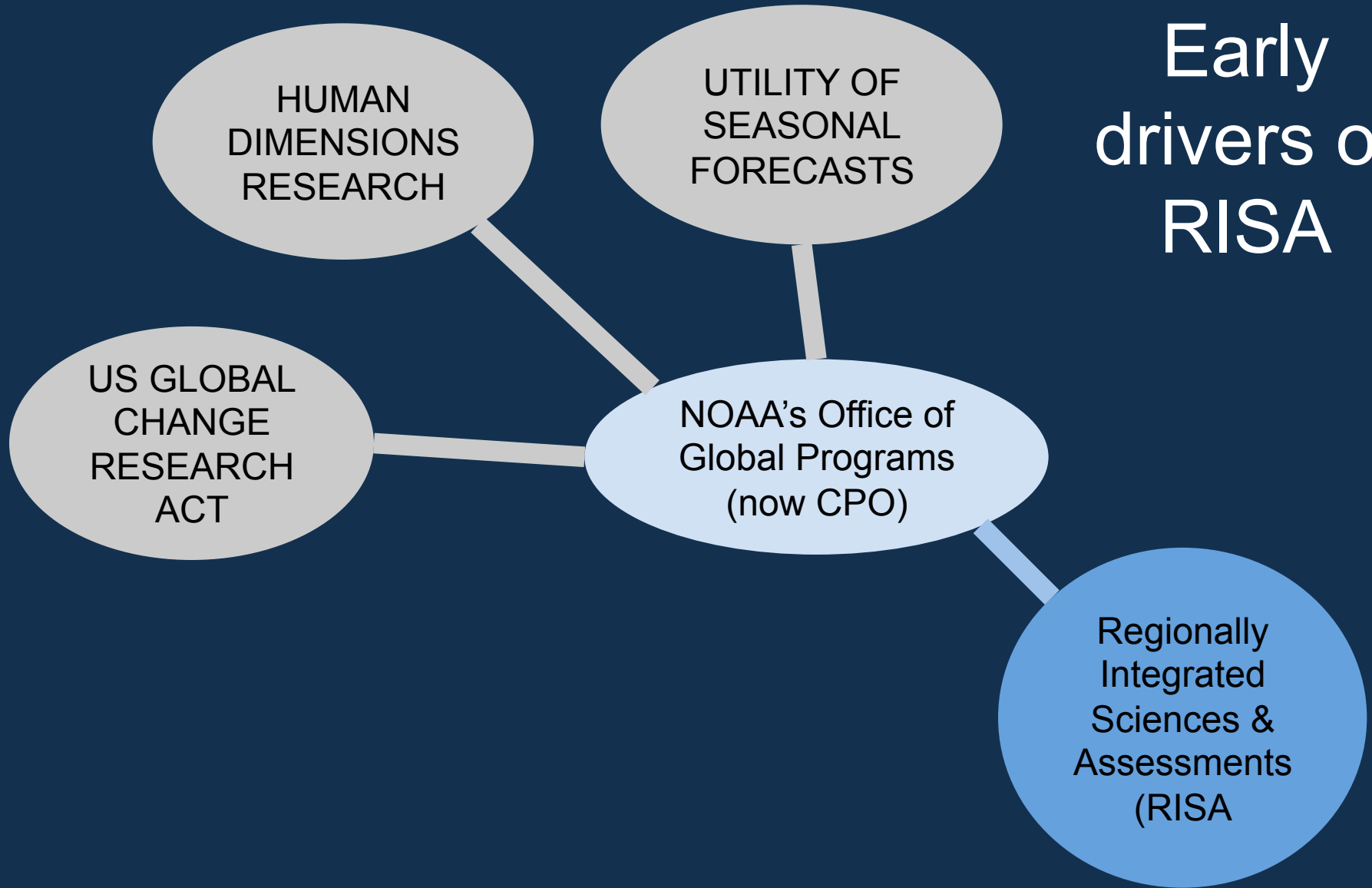


Capacity Building through Competitive Research

Adam Parris, Caitlin Simpson, and Anne Waple
RISA Program & Assessments Program
NOAA CPO & NCDC



Early drivers of RISA



El Niño and Society

This chart graphically portrays political, economic, geophysical factors that can be shown to have affected the development and management of the Peruvian anchoveta fishery. By the 1960s Peru had become the number one fishing nation in the world processing its anchoveta into fishmeal which was exported to developed countries where it was used as a high protein animal supplement. Many observers have blamed the collapse of that fishery on El Niño.

POLITICAL PROCESS

1945-48: Bustamante y Rivero government emphasizes protection of domestic industries, price controls, opposes dependence on exports.

1948-56: Odría government comes to power as a result of military coup; establishes policies favoring an open economy and export-led development.

1962: Haya de la Torre wins elections; army intervenes, forcing Prado to resign. Junta suspends constitutional guarantees.

1974: Transition to democracy.

1963-68: Belaunde elected president; emphasizes market-based, export-led development; government encourages initiatives in the private sector.

1968: Military coup ends Belaunde government; establishment of Velasco government. In a series of nationalization measures, oil companies, banks, and newspapers are taken over, radical land reform decrees are passed.

1956-62: Prado, president from 1939-45, returns to power in a popular election.

1947: Peru declares 200-mile limit to its territorial waters, ensures national control over its marine resources in the coastal zone.

Pre-1950: Guano Administration Company blocks attempts to develop industrial fishery based on the exploitation of the anchoveta, the main source of food for the guano-producing birds.

1950: California sardine fishery collapses because of sharp decline in sardine fish population; idle fleets and plant capacity sold to Peruvians by the California entrepreneurs at prices extremely favorable to the emerging new fishmeal entrepreneurs in Peru.

1954: Guano Administration Company fails to block government approval of the initial development of the fishmeal industry.

1960: National Fisheries Society (SNP) emerges as independent lobby, dominated by fishmeal producers.

1960: First major decline in fishmeal prices in the international marketplace; creation of the Fishmeal Exporters Organization in order to control the tendency to overproduce fishmeal for export, and to stabilize fishmeal prices.

1966: First private sector fishmeal marketing cooperative created (Consorcio Pesquero).

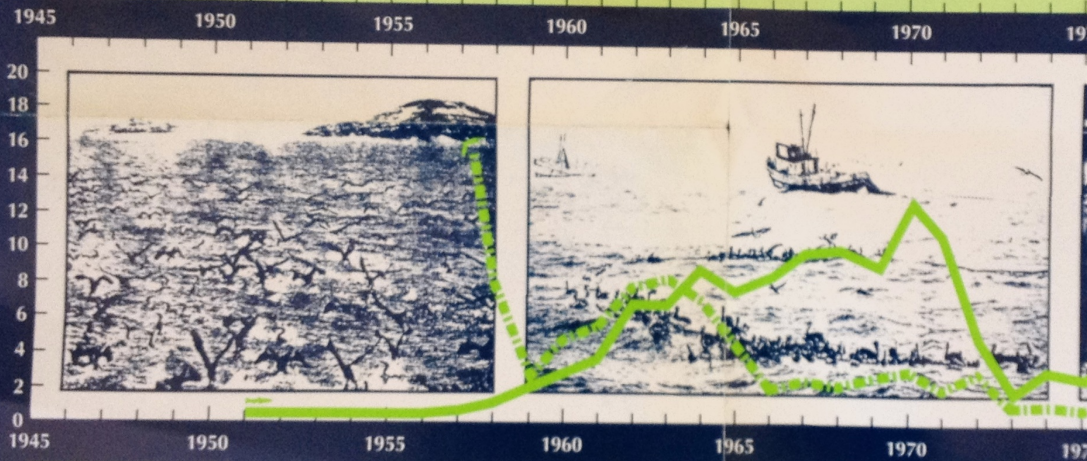
1969: Fishmeal exports account for one-third Peru's foreign earnings.

1970: The Peruvian Ministry of Fisheries along with other government agencies encourage food fishery and to centralize marketing of fishmeal and fish oil.

1970: Peruvian General Law of Fisheries to set objectives for the sector.

1973: Creation of company to run nationalization of processing activities.

POLICY AND ECONOMICS



SCIENCE AND TECHNOLOGY

1940's: Marine biologists research Peruvian coastal waters to determine its biological potential.

Pre-1950: Guano bird population kept artificially high by the Guano Administration Company's policy to increase guano production.

1955: Introduction of nylon nets into the fishery; greater durability lowers operating costs; stimulates greater involvement by nonfisheries specialists in the fishery.

1960: Peru and the UN Food and Agriculture Organization establish the Instituto de los Recursos Marinos.

1951-53: El Niño occurs; heavy rains along northwest coast of South America.

1957-58: Major El Niño; guano-producing bird population declines from about 30 million to 16 million.

1963: El Niño.

1963: El Niño; sustained drop in anchoveta biomass; guano-producing bird population reduced by about 75%.

1968: El Niño affects fishery; landings down.

1960: Recent catch of anchoveta at a time when the MSY for this fishery is determined to be 9.5 MMt (7.5 MMt for fishermen and 2.0 MMt for the guano bird population).

1964: Establishment of precursor to IMARPE (Instituto del Mar del Perú). IMARPE and fishermen note changes in the nature and quantity of the catch; this leads to "closed fishing seasons."

1965: Scientists begin to apply Maximum Sustainable Yield (MSY) concept to Peruvian anchoveta.

1965: First closed fishing season (early).

1965-68: First quota for Peruvian anchoveta established.

1972: Anchoveta recruitment until middle of fishing season.

1972: Increase in sardine fishery.

1973: Government for the fishing sector and central Peru's ground remains in.

1974: First business.

1974-75: El Niño.

1970-73: Major El Niño.

EL NIÑO

Why Regions?

Institutions

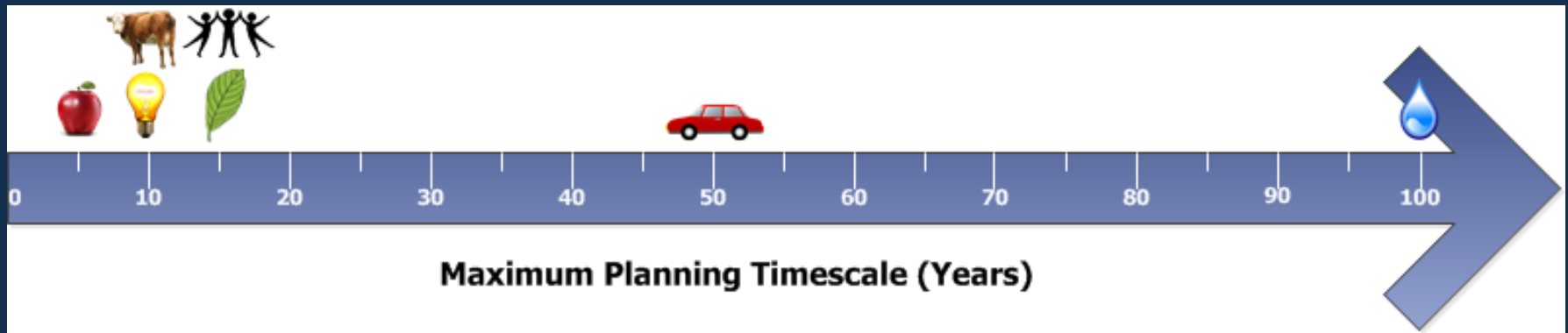
Values

Resources

Data and Info

Climate

Climate-related needs of OK Decision Makers



*Riley, R., K. Monroe, J. Hocker, M. Boone, and M. Shafer, 2012: An Assessment of the Climate-Related Needs of Oklahoma Decision Makers. Southern Climate Impacts Planning Program, 47 pp. [Available online at http://www.southernclimate.org/publications/OK_Climate_Needs_Assessment_Report_Final.pdf.]

Putting climate in context

MANAGING DROUGHT

IN THE SOUTHERN PLAINS

You are invited to join us in a bi-weekly webinar (web-based seminar) series to discuss drought conditions, impacts and resources available to help manage drought in the Southern Plains. **Webinars will be held on the 2nd and 4th Thursdays of each month at**

To register or for more information, contact:

NIDIS Reauthorization Hearing

7/25/12

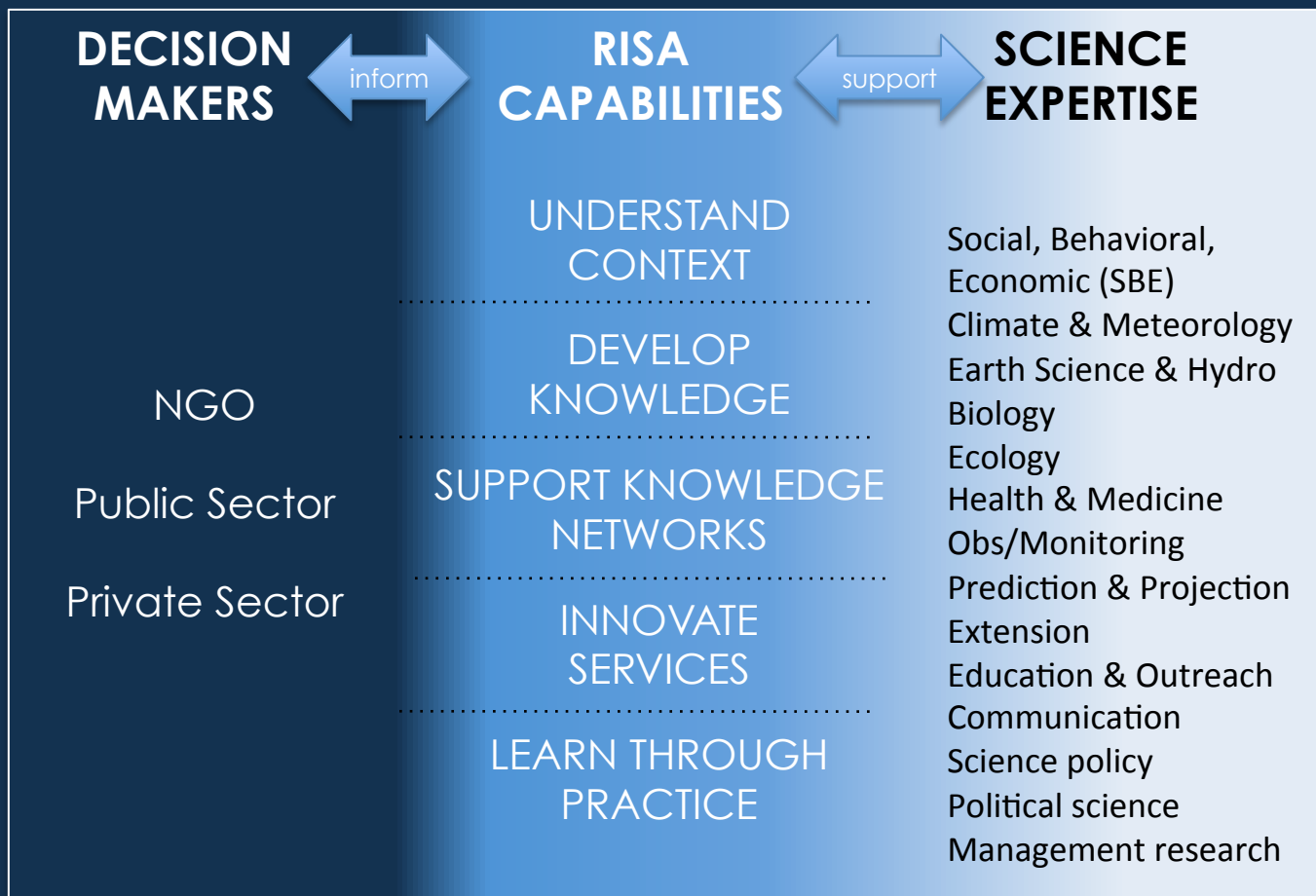


“...attended by representatives from more than 40 institutions representing water resources, agriculture and livestock, forestry and wildfire management interests, and state and federal agencies...Most importantly, participants now know counterparts working with drought issues in neighboring states and have identified sources of expertise in regional and national organizations.”

J. D. Strong, OK Water Resource Board

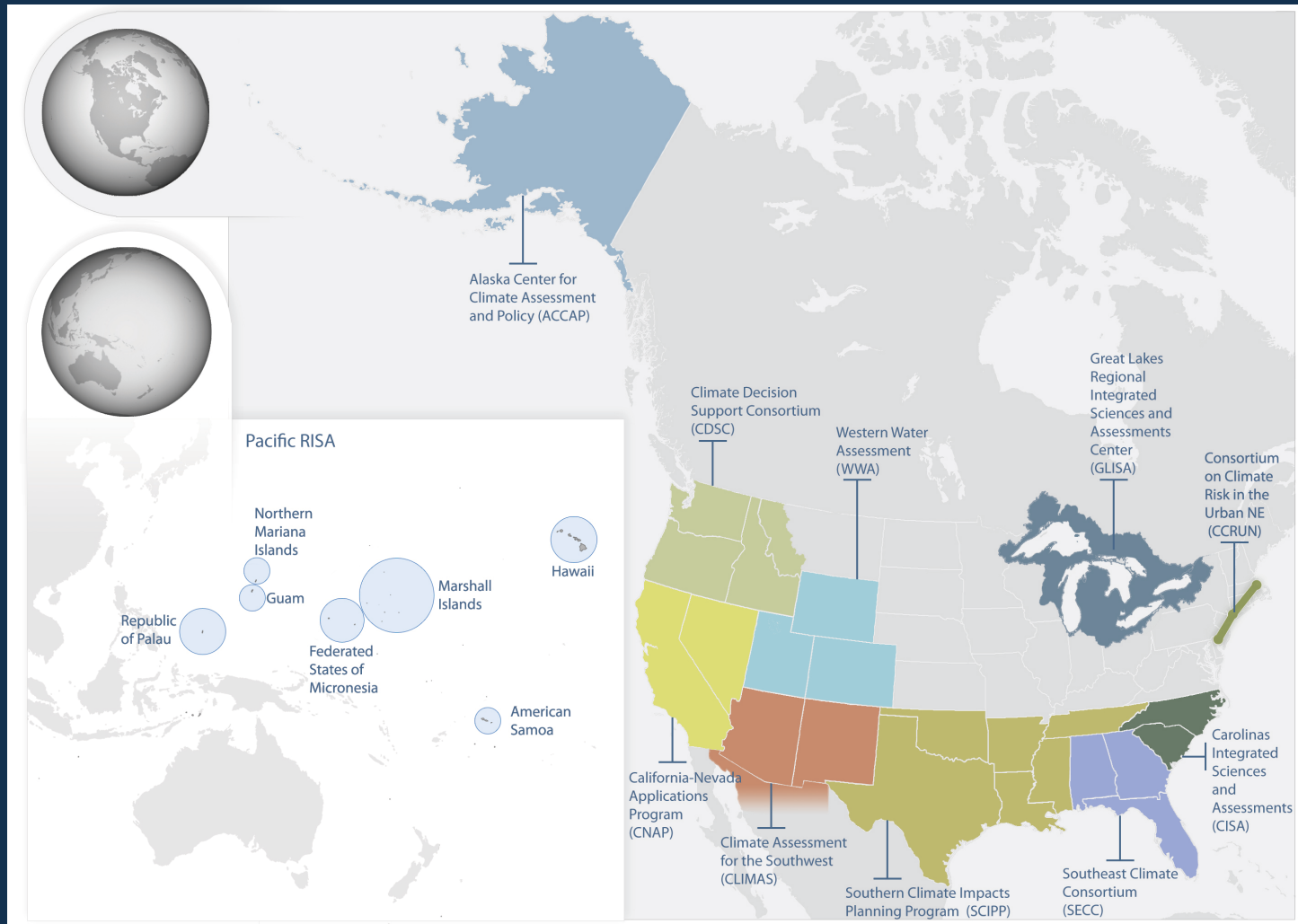


RISA Capabilities



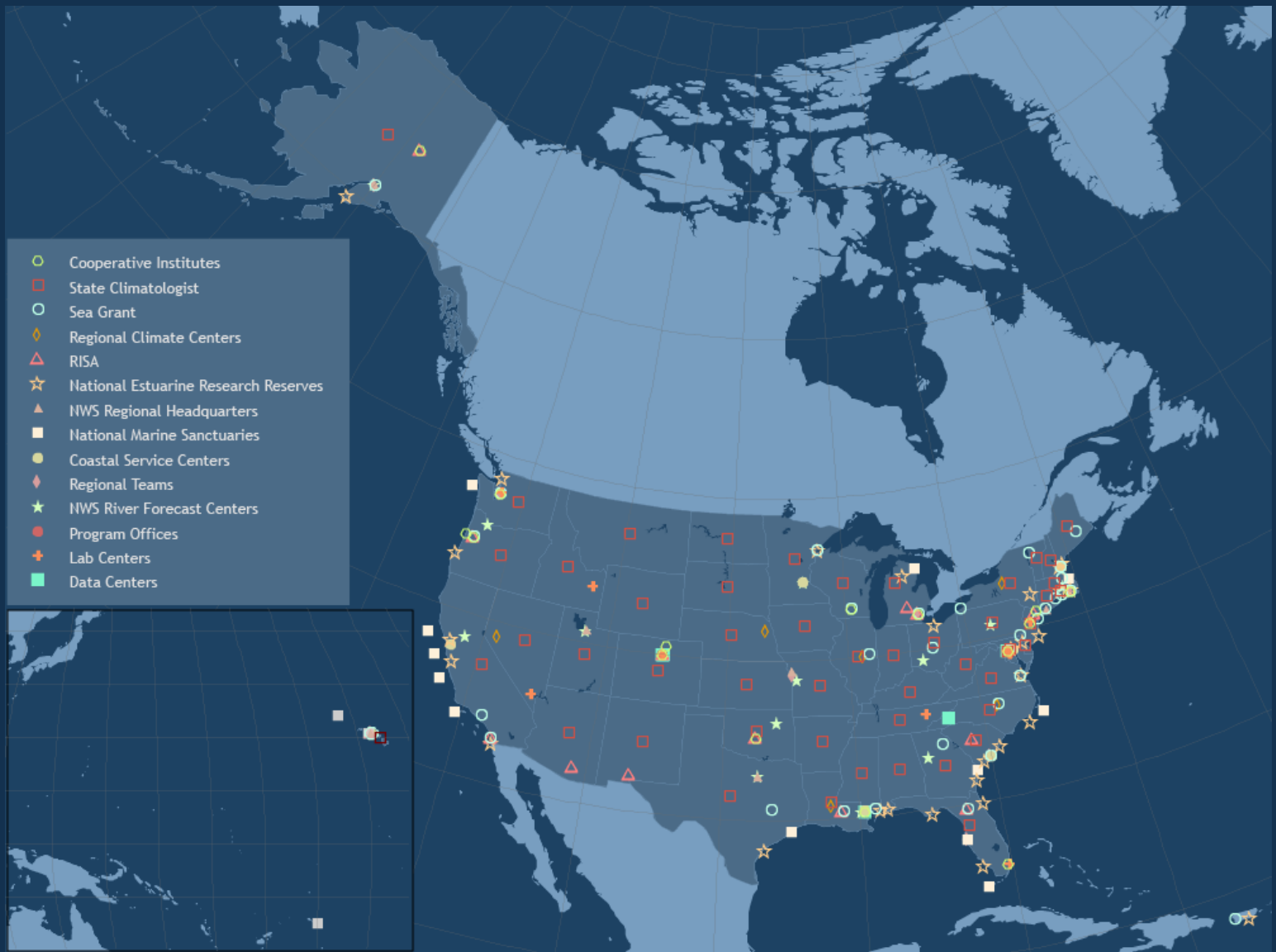
Regionally Integrated Sciences & Assessments

Building capacity to adapt to climate





NOAA Regional Partners





Balancing Regional/National Priorities



Regional Priorities

- Drought
- Outdated water rights
- Knowledge gaps
- Evolving conditions
- Assessment



Competitive Research

- Mutual priorities
- Science policy innovations
- Focused, traceable projects

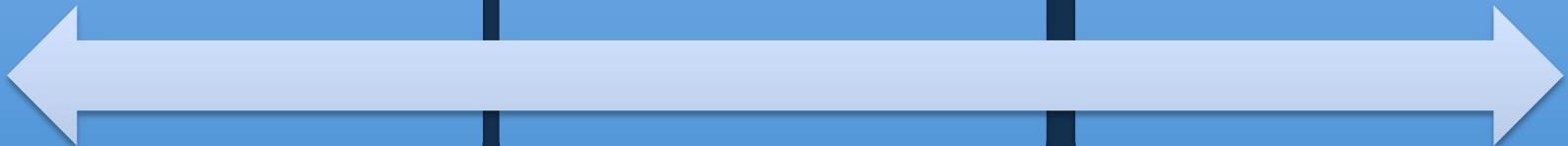


United States Global Change Research Program



National Priorities

- Mission/Mandate
- Core capabilities
- Funding
- USGCRA





FY12 FFO

Research Partnerships in Support of Regional Climate Adaptation

- Named USGCRP and EO 13514 in context
- Connected RISAs with national agency reps of USDA, EPA, USFS, and NOAA NMFS in proposal development phase
- Focused on capacity development
- 3 priorities – Regional capacity for:
 - Coastal and Marine Climate Adaptation
 - Water Resource Management and Planning
 - Land Management
- Over 6 different agencies participated in panel review



Science Policy Innovation

V. Application Review Information

A. Evaluation Criteria

NOTE: Percentages reflect final weighting for and 2, described below.

A. Evaluation Criteria

1. Importance/Relevance and Applicability of A

This criterion ascertains whether there is intrinsic relevance to NOAA, federal, regional, state, or local Competition, this includes importance and relevance of selected Competition(s) (See Section I.B Program details.). The PI's record of making his/her data available to the community in the past may also be considered in the relevance of the application. 50% of the above-documentation within the proposal indicating the entity dedicated to the proposed project. Evidence of research/staff time, workshop costs, computer time, and other resources dedicated by the partner to the proposed project. Federal resources dedicated to another project cannot be used to describe how new resources from a partner would be used.

2. Technical/Scientific Merit (52.5%)

This criterion assesses whether the approach is innovative, the methods are appropriate, and whether the goals are achievable through clear project goals and objectives.

★ **Key Innovation - 50% of the relevance score was determined by “PARTNER CONTRIBUTIONS”**

- **BUILDING CAPACITY** - Operational offices of federal gov't working with academic, R & D centers
- **LEVERAGING CAPABILITIES** - Collaboration between Denise Lach (OSU social scientist) and Dave Peterson (USFS Biologist)

Proposal Title	RISA	Partner	Partner Funds (K)	CPO Funds (K)
Water Reservoir Data Visualization Tools	SCIPP	NCDC	\$60	\$44
Building Organizational Capacity to Adapt to Climate Change on Public Lands in the PNW	CIRC	USFS	\$60	\$199
Mapping the Flow of Climate and Water Information in the Pacific Islands	Pacific RISA	USGS CSC	\$25	\$150
Use of seasonal climate forecasts to minimize short-term operational risks for water supply and ecos. restoration	SECC	SE Water Utilities	In-kind	\$149
Climate and Weather Services for Disaster Management	CLIMAS	FEMA	In-kind	\$165
A Water Management Knowledge Network for the Northeastern US	CCRUN	NCDC	\$10	\$199
Building Climate Science into Land and Water Conservation Planning/Decision Making in SW	WWA	The Nature Conservancy	\$10	\$199
TOTAL			\$165	\$1,110

★ Key Innovation – 15% interagency funding helps ensure commitment and extends utility of project to partner organization (i.e. TRANSFER OF CAPACITY)



FY13 FFO

Research Partnerships in Support of Regional Climate Adaptation.

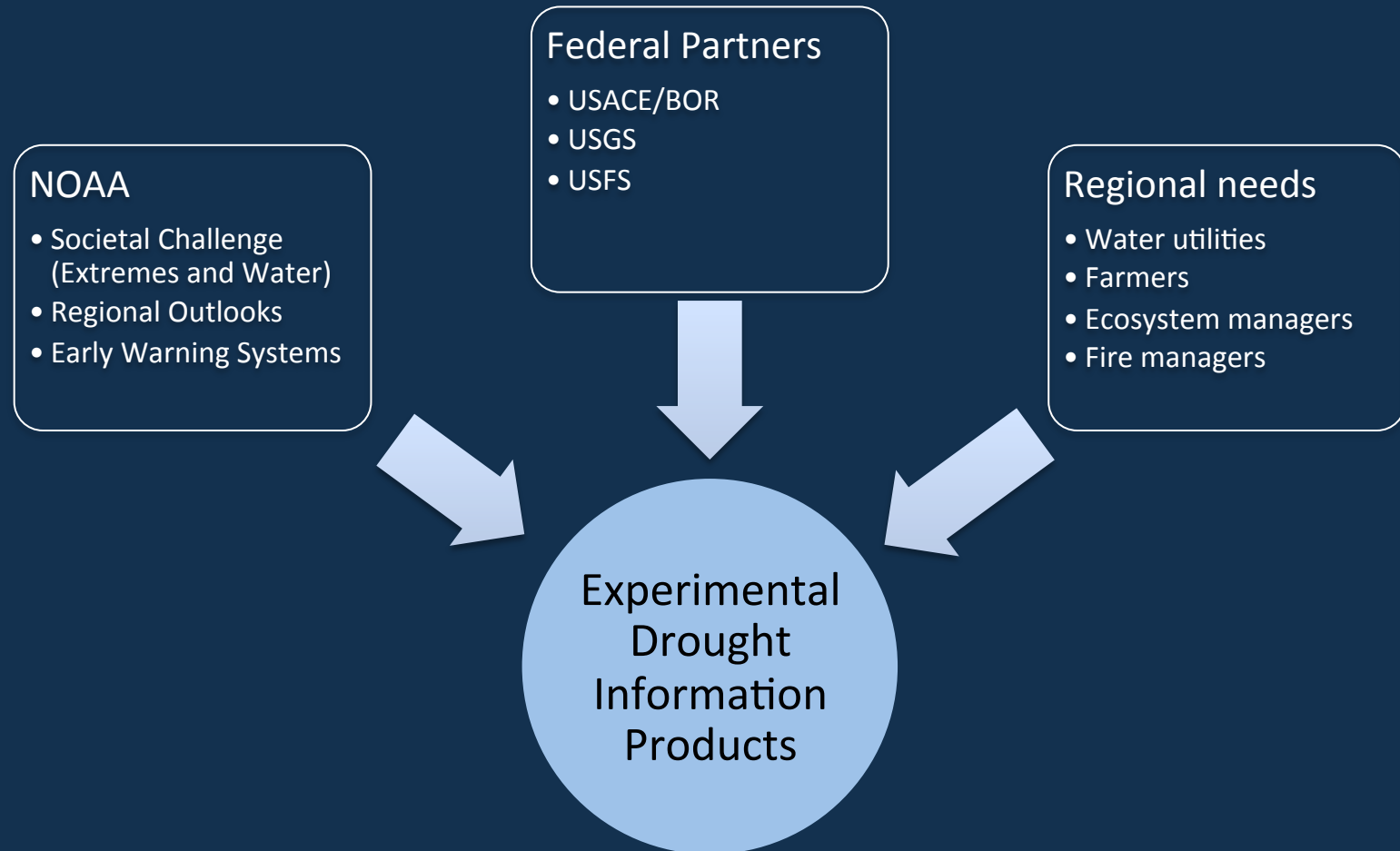
Expand regional capacity for:

- Coastal Flooding in Urban Communities
- Scenario Planning
- Climate Impacts on Marine Ecosystems
- Experimental Drought Information Products



Why did we choose priorities?

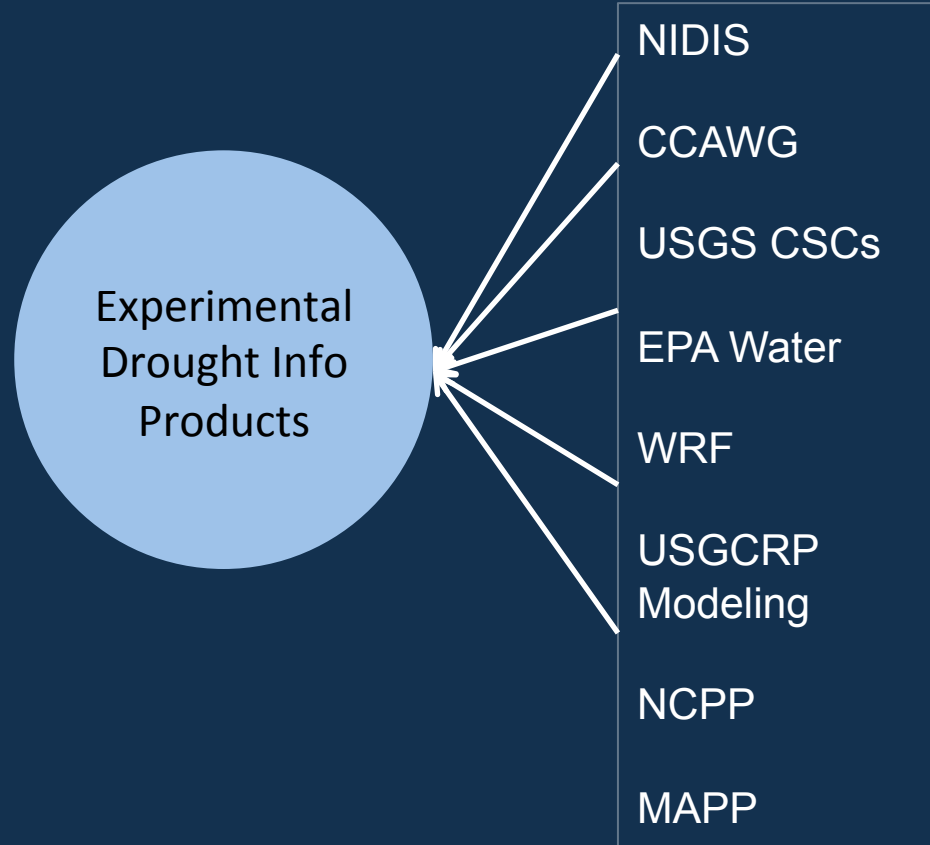
Drought Example





Priority Development Teams – Drought Ex.

Priority authors are well connected to ongoing engagement efforts.
They have discretion to engage additional partners (time permitting).





Bottom Line

- Competitive research can stimulate decision relevant science consistent with the Federal agency
- Science policies for competitive research help ensure that knowledge is actionable and capacity is built
- We have created an inter-agency funding process that can be sustained over time to develop projects relevant to USGCRP and NIDIS